

## STATUS OF THE WATER SECTOR

According to the International Red Cross, “both the quantity and quality of drinking water in Iraq remain insufficient despite limited improvement...water is often contaminated, owing to the poor repair of sewage and water-supply networks and the discharge of untreated sewage into rivers, which are the main source of drinking water.”<sup>83</sup> U.S.-funded projects aim to help the GOI address the challenges in this sector.

It is difficult to measure the direct impact of U.S.-funded projects. As a way to measure the impact of U.S. reconstruction efforts in the water sector, IRMO developed a set of metrics and standard methodologies.<sup>84</sup> SIGIR reports on two primary IRMO metrics for the water sector:

- maximum additional system capacity
- additional people served at standard level of service, considering actual system conditions<sup>85</sup>

GRD reports that U.S. contracts are increasingly awarded to Iraqi firms. Currently, GRD oversees about 150 water sector reconstruction projects,<sup>86</sup> and “over 90% of the water contracts are directly with Iraqi firms.”<sup>87</sup> GRD reports that, in general, Iraqi firms have showed the ability to stay within budget but have struggled to meet completion dates. In general, delays are caused by three factors:<sup>88</sup>

- “overly optimistic” U.S.-established completion dates
- the “complex environment,” where work is being performed

- the lack of an “institutional framework” for bureaucratic paperwork, such as approving permits

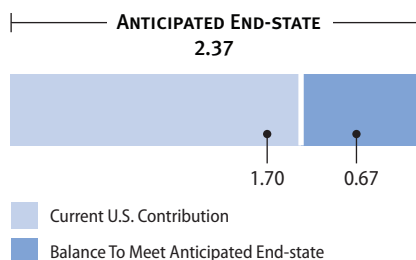
Last quarter, IRMO noted that the GOI’s insufficient budget for the water sector is a major concern for sustainment of U.S.-funded projects.<sup>89</sup>

### Potable Water

U.S.-funded projects continue to add potential capacity to the potable water system. The **Nassriya Water Supply Project** (\$262 million), which is currently scheduled to be completed this month,<sup>90</sup> and **Sharq Dijla Water Treatment Plant** (\$22.9 million), completed in 2006, have the potential to supply more than 1 million people with potable water.

The **Nassriya Water Plant**, the largest U.S.-funded water treatment plant in Iraq, has the capacity to supply 240,000 cubic meters of water per day. DoS reports that “about 100

Figure 2-19  
**OUTPUT OF U.S. POTABLE WATER PROJECTS**  
Million Cubic Meters per Day  
Source: GRD, Response to SIGIR (4/6/2007)



personnel are required”<sup>91</sup> for its operation and until enough Iraqis are trained, the facility will not be operated or turned over to the Ministry of Municipalities and Public Works. The Sharq Dijla Water Treatment Plant has the capacity to potentially supply 196,000 cubic meters of water per day.

Another U.S.-funded program that is adding potable water capacity to the Iraq system is the **Small Potable Water Program** (\$116 million), a series of small water projects. This program focuses on contracting directly with Iraq firms, currently employing approximately 3,400 Iraqis, and potentially serving as many as 3.2 million people with potable water. The outputs of these IRRF-funded projects appear in Figure 2-19, which shows the current and anticipated capacity provided by completed water projects.

U.S. projects have provided capacity to supply potable water access to an estimated 5.6 million people—an increase from last quarter’s 5.4 million and more than half the anticipated end-state of 8.4 million people. The United States has now completed 88% of planned potable water projects.

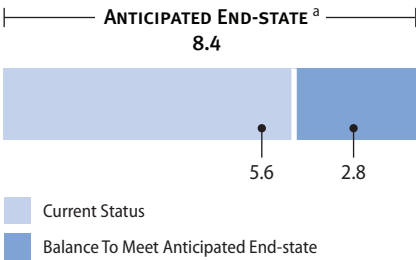
For a summary, see Figure 2-20.

Sanitary Sewage

IRMO uses the same set of metrics to measure the impact of U.S. efforts in the sanitation sector as it does for potable water. Although measuring how much additional sewage is actually treated remains difficult,<sup>92</sup> U.S.-funded projects continue to add potential capacity to the sanitary sewage system.

The **Basrah Sewage Project**, completed in October 2006, added four new pumping stations to the Iraqi sewage system, in addition to constructing and rehabilitating sewage collection networks. The **Fallujah Wastewater System** (\$50.8 million) plans to install a wastewater treatment plant and collection system with the potential to benefit 228,000 people in Fallujah City.<sup>93</sup> According to the DoS *Section 2207 Report*, “worsening security conditions” continue to impact progress at this site.<sup>94</sup>

Figure 2-20  
**PEOPLE SERVED BY U.S. POTABLE WATER PROJECTS**  
\$ Millions  
Source: GRD, Response to SIGIR (4/6/2007)



<sup>a</sup> The estimated end-state is based on the estimated date for completing all water projects.

Figure 2-21  
**OUTPUT OF U.S. SANITARY SEWAGE PROJECTS**  
 Million Cubic Meters per Day  
 Source: IRMO, Response to SIGIR (4/6/2007)

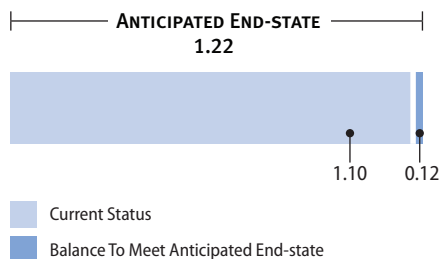


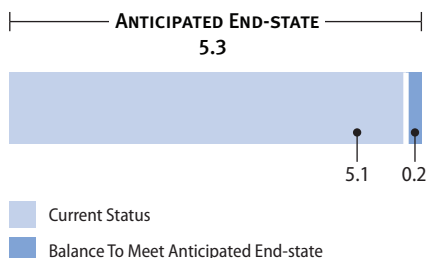
Figure 2-21 shows the current and anticipated status of additional sanitary sewage capacity that U.S. projects have contributed to the system.

U.S. projects have provided additional capacity to serve an estimated 5.1 million people with sanitary sewage systems. The United States has now completed 82% of planned sanitary sewage projects, see Figure 2-22.

## Irrigation

After spending \$81.9 million on the **Nass-riya Drainage Pump Station** project, which included construction of the Industrial Services Water Building, GRD recently stopped work on the project because budgeted funds were not available to meet the estimated \$147.7 million cost to complete. The United States has made an agreement with the GOI to complete the project via a grant arrangement, and the new estimated completion date is December 2007.

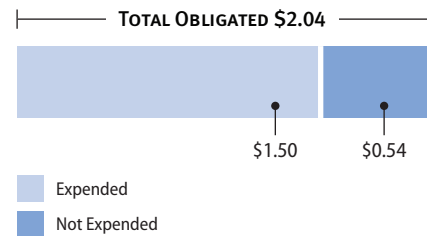
Figure 2-22  
**PEOPLE SERVED BY U.S. SANITARY SEWAGE PROJECTS**  
 Millions  
 Source: GRD, Response to SIGIR (4/6/2007)





Water treatment remains an important component of the U.S.-funded Iraq reconstruction program.

Figure 2-23  
**STATUS OF IRRF 2 FUNDS - WATER**  
\$ Billions  
Source: DoS, *Iraq Weekly Status* (3/27/2007)

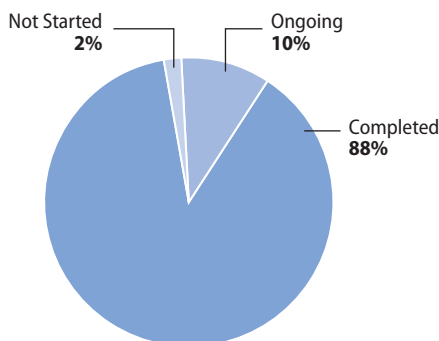


## U.S.-funded Results in the Water Sector

The water sector has expended all but 26% (\$540 million) of its IRRF allocation (\$2.13 billion). As of March 27, 2007, 96% of the sector's funding had been obligated, but only 70% had been expended.<sup>95</sup> For the status of IRRF funds in this sector, see Figure 2-23.

As of April 2, 2007, 88% of water projects are complete,<sup>96</sup> and 2% have yet to start. All U.S.-funded projects in this sector are scheduled to be completed by October 2008.<sup>97</sup> For the status of projects in the water sector, see Figure 2-24.

Figure 2-24  
**STATUS OF IRRF 2 PROJECTS - WATER**  
Sources: IRMS, *IRMO Rollup* (3/30/2007); USAID, *Activities Report* (4/10/2007)



Project Type	Not Started	Ongoing	Completed	Total
Potable Water	13	105	883	1,001
Sewerage	6	6	55	67
Water Conservation			18	18
Pumping Stations and Generators			9	9
Other Solid Waste Management			3	3
Umm Qasr/Basrah Water Supply Project		1	1	2
Dam Repair, Rehabilitation, and New Construction		1		1
Om Al-Iraq Canal Cleaning			1	1
Construct Eastern Euphrates Drain		1		1
<b>Total</b>	<b>19</b>	<b>114</b>	<b>970</b>	<b>1,103</b>